Message

From: Coan, Sean [CoanSM@cdmsmith.com]
Sent: 5/23/2018 3:16:55 AM
To: Cirian, Mike [Cirian.Mike@epa.gov]; Gunnar Emilsson [EmilssonGR@cdmsmith.com]
Subject: CFAC - Daily activities 5/22/2018

Good Evening Mike and Gunnar,

Following is a summary of work performed at the site on 5/22/2018:

0655 Hrs – Sean Coan (CDM Smith) arrived onsite. Roux personnel Annelise Muscietta and Lauren Dolginko arrived onsite.

0700 Hrs – Cascade Drilling personnel Randy Darnell and Steve Vibbard arrived onsite. Roux, Cascade, and CDM Smith participated in a health and safety and pre-work briefing. The planned activities included ISM soil sampling and monitoring well development. Cascade and Roux personnel began preparing equipment for the day's work including calibrating the water quality meter.

0750 Hrs – Ms. Dolginko and Mr. Darnell mobilized for ISM sampling. Mr. Vibbard set up to bail sediment from well CFMW-057B. Mr. Coan and Ms. Muscietta mobilized to the South Percolation Ponds area to inspect the coffer dam and rip-rap. The Flathead River was flowing very rapidly. The rip-rap and sheetpiling appeared to be in good condition and were significantly reducing the river's inundation of the of the South Percolation Ponds peninsula. Ms. Muscietta and Mr. Coan continued on a full site tour.

0915 Hrs – Mr. Coan joined Ms. Dolginko and Mr. Darnell at ISM sampling grid CFISS-05. Drilling and sampling were in progress.

1045 Hrs - Sampling of grid CFISS-05 was completed. All sampling procedures were followed satisfactorily. Mr. Darnell decontaminated all downhole equipment. pH readings were 6.89 for the 0-0.5 foot interval, and 6.87 for the 0.5-2 foot interval.

1115 Hrs - Ms. Dolginko, Mr. Darnell, and Mr. Coan mobilized to ISM sampling grid CFISS-03 and set up for sampling.

1130 Hrs – Drilling commenced in sampling grid.

1205 Hrs – Roux, Cascade, and CDM Smith broke for lunch.

1300 Hrs – Ms. Muscietta and Mr. Coan mobilized to well CFMW-069. Depth-to-water (DTW) was 32.79 feet below top of casing (BTOC) and total depth (TD) was 57.56 feet BTOC. The top of casing of the well was measured as 2.4 feet above ground surface. Mr. Vibbard began bailing the sediment out of the well. Due to a failure of the development rig's hydraulic system on the mast the wells will be subjected to bailing and pumping only.

1420 Hrs - Bailing of well CFMW-069 was completed. Ms. Muscietta and Mr. Vibbard set up to pump the well.

1426 Hrs – Ms. Muscietta and Mr. Coan mobilized to well CFMW-071 to collect DTW and TD measurements. Mr. Vibbard worked on transferring development water from a 55-gallon drum to the water storage tote.

1430 Hrs – DTW in well CFMW-071 was 86.34 feet BTOC; TD was 101.44 feet BTOC. Ms. Muscietta and Mr. Coan mobilized back to well CFMW-069. The pump that had been used to develop well CFMW-057B earlier in the day was broken. The replacement pump was prepared and emplaced in the well.

1537 Hrs – Pumping commenced at well CFMW-069.

1600 Hrs – S. Coan mobilized to check in with the ISM team. They had finished sampling grid CFISS-03 at 1530 and set up to begin sampling grid CFISS-01 in the morning of 5/23/2018. Samples were packaged and stored on ice.

1630 Hrs – Mr. Coan returned to well CFMW-069. Turbidity readings had remained around 200-300 NTU. However, the water was visibly clear.

1737 Hrs- Turbidity readings did not stabilize at <50 NTU, so the well was pumped for two hours. Cascade and Roux personnel worked on cleaning up and securing the site and moving equipment. Well development and ISM activities will resume on 5/23/2018.

1745 Hrs – CDM Smith left the site for the day.

No issues in ISM sampling procedures were noted. Roux and I discussed the possibility that the water quality meter may function more effectively with a flow-through cell to facilitate continuous monitoring. Currently the measurements are taken periodically by filling a bucket and submerging the meter. This is an acceptable way to collect these data, but the turbidity measurements were suspect – the water cleared up nicely, but the target of <50 NTU was never reached. Also, the ISM sampling will likely be completed tomorrow; subsequently the DPT operator will be free to help with the well development work. No other issues were noted for well development. Let me know if you have any questions or would like to discuss.

Thanks very much,
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